Specifications for

Herman Miller AO1 or Compatible Match New and Used Non-Powered Systems Furniture And Components

AMZ-100 001-HQB, Room 366

Specifications for 001-HQB AMZ-100 Room 366 Herman Miller AO1 or Compatible Match (Cloned), Non-Powered Systems Furniture and Components

- 1. SCOPE: This description covers Herman Miller AO1 or Compatible Match (Cloned) non-powered panel-hung systems furniture and components for AMZ (001)-HQB Room 366 at the Mike Monroney Aeronautical Center. This project includes Herman Miller AO1 or compatible match (cloned) new panels; steam cleaning of existing Herman Miller AO1 panels; and Herman Miller AO1 or compatible match new work surfaces, open and closed overheads; freestanding pedestals and files; keyboards; task lights; metal storage racks; and energy saving control system; with an option for new work surfaces for the existing workstations.
 - 1.1. The work to be performed under this specification consists of providing all the labor, equipment, materials, coordination, storage and transportation necessary to design, provide and install a complete and functional furniture system in accordance with this specification and accompanying typical drawings.

2. PROJECT DESIGN:

- 2.1. Modifications to the typicals may occur based upon site conditions and other factors identified during the design process. All typical dimensions, shapes, etc., are illustrated to describe the range of components that the government expects to procure. Specific orders will be placed for those items required to meet the design requirements of the project.
 - 2.1.1. Typicals shall be designed **not to exceed the boundary/footprint** indicated on the typicals.
 - 2.1.2. Proposed products shall be Herman Miller AO1 or compatible matched (cloned) new products similar in size, appearance and function as indicated on the typicals and in these specifications.
 - 2.1.3. References to a manufacturer's model are for the purpose of conveying the aesthetics, quality, and function.
 - 2.1.4. The layout shall conform to IBC 2003, NFPA 101 and shall be accessible in accordance with ABA guidelines.
- 2.2. <u>Minimum Requirements</u>. The components shown in the attached typicals, along with this specification, shall be considered as minimum requirements.
- 2.3. Experience. Furniture Contractor shall provide a Product/Project Team with bid package, which shall be available throughout the completion of the project. Minimum experience requirements are:
 - 2.3.1. Furniture Contractor's Project Manager minimum of 5 years experience.
 - 2.3.2. Furniture Contractor's Installer minimum of 5 years experience.
- 2.4. <u>Project Schedule</u>. Furniture Contractor shall provide a proposed design and installation schedule in **number of workdays** for the project **with bid package**. Schedule **must** include the following activities
 - 2.4.1. Field verify existing dimensions (If it is not possible to field verify because of the stage of construction indicate the critical dimensions that need to be maintained during construction in order for the furniture to fit within the given space).
 - 2.4.2. Prepare a product design utilizing their product line based upon the typicals, concept plan, and **actual dimensions** of the areas of installation.
 - 2.4.3. Prepare Preliminary Design Plan
 - 2.4.4. FAA Review of Preliminary Plan (Allow 5 working days for FAA review).
 - 2.4.5. Prepare Final Design Plan

- 2.4.6. FAA Review of Final Plan (Allow 2 days for FAA review/approval).
- 2.4.7. Provide Itemized list of components with quantity and price by typical and installation parts plan.
- 2.4.8. FAA Review of Itemized List of Components & Installation Parts Plan (Allow 2 days for FAA review/approval).
- 2.4.9. Provide Itemized order confirmation.
- 2.4.10. Manufacturing.
- 2.4.11. Product Delivery.
- 2.4.12. Product Installation by phase. Allow 1 day between phases for FAA personnel moves to occur.
- 2.5. <u>Typical Drawings/Plans</u>. Furniture Contractor shall provide **"to scale**" plans, elevations and/or 3-dimensional design drawings **with bid package**.
 - 2.5.1. Panel Drawings: Show layout of panels.
 - 2.5.2. <u>Workstation Drawings</u>: Show layout of individual components with mounting heights of work surfaces and components and electrical and data connections.
 - 2.5.3. <u>Typicals</u>. On each Typical identify any differences or enhancements between the FAA Typical and the proposed typical and describe how these meet or exceed the minimum specifications.
 - 2.5.4. Any components not shown in the FAA Typical, which are needed to conform to the manufacturer's recommendations for installation, shall be included.
 - 2.5.5. Provide an itemized bill of materials for each proposed solution. The bill of materials shall include the offeror's part number, nomenclature, size, quantity and unit price of each component required for *one of each typical*.
 - 2.5.6. The proposed typicals will be used as a basis for evaluating the ability of each offeror's line of furniture to fulfill the requirements for this project.
 - 2.5.7. The FAA will provide an AutoCAD 2004 format .dwg file to use as a base.
- 2.6. <u>Meetings.</u> Furniture Contractor's product team shall be required to attend the following meetings, as required:
 - 2.6.1. Pre-design meeting to discuss design requirements.
 - 2.6.2. Final-design meeting to confirm product parts to be ordered.
 - 2.6.3. Panel pre-installation meeting to discuss key aspects of furniture installation.
 - 2.6.4. Panel acceptance inspection meeting.
 - 2.6.5. Component pre-installation meeting to discuss key aspects of furniture installation.
 - 2.6.6. Product component acceptance/inspection meeting.
 - 2.6.7. Furniture Contractor's Project Manager shall be available to meet onsite during the design and installation process as required.
- 3. SCHEDULE: The construction schedule currently indicates the project could be 100% complete by **December 1, 2011** and ready for installation.
 - 3.1. Target Installation Start Date. December 1, 2011.
 - 3.2. Target Installation Completion Date. December 31, 2011
- **4. WORK HOURS**: Work shall occur **after-hours** between 6:00 pm and 6:00 am on Monday through Thursday, and from 6:00 pm on Friday through 6:00 am on Monday over weekends. Weekend work must be coordinated fourteen (14) work days in advance with the COTR.
- **5. PHASES**: This six (6) phase project will be scheduled to coordinate with the construction completion schedule.
 - 5.1. Phases 1-4 Systems Furniture Component Installation. Approximately fourteen (14) workstations in each phase will have the components removed, panels cleaned, and new overheads, pedestals and freestanding files installed. In the Base Bid the

- existing work surfaces shall be reinstalled. In **OPTION 1**, new work surfaces will be purchased and installed.
- 5.2. **Phases 5-6 will have two-sub phases** made up of the following activities for workstations B & C which include new panels.
 - 5.2.1. **Systems Furniture Panel Installation**. Systems furniture panels will be installed as necessary for the FAA to locate building power and data tombstones for each workstation. Schedule shall be coordinated with the General Contractors construction schedule.
 - 5.2.2. **Systems Furniture Components Installation**. After the installation of building power and data is completed by the general contractor, and when directed by the COTR, furniture contractor will complete installation of components (new work surfaces, overheads, pedestals and freestanding files).

6. ORDER/DELIVERY/INSTALLATION:

- 6.1. Furniture Contractor shall provide all labor and materials to provide on-site management, coordination, and technical assistance throughout the installation process and complete the installation in accordance with the approved plan and installation schedule.
- 6.2. <u>Ordering</u>. Product must be ordered and delivered to meet the project phases, and meet target completion schedule dates.
- 6.3. <u>Site Acceptance</u>. A walkthrough shall be conducted to identify any existing building damage prior to the delivery and installation process
 - 6.3.1. Furniture Contractor shall be responsible for damage to the building, which occurs during the delivery and installation process, and completing the building repairs to the satisfaction of the FAA.
- 6.4. Storage and Delivery. Furniture Contractor shall be responsible for:
 - 6.4.1. Receipt, storage, delivery and handling of all materials and supplies necessary to provide a complete installation.
 - 6.4.1.1. Furniture contractor shall include storage of product in their installation costs, and provide storage through January 31, 2011.
 - 6.4.2. Meeting all incoming delivery vehicles, escorting to the site, and unloading product.
 - 6.4.3. Identifying damaged product items and having those repaired or replaced to not cause installation delays.
 - 6.4.4. Movement of furniture from storage to the installation site as needed.
 - 6.4.5. Furniture product shall be installed at the HQB Building (001-HQB), 6424 S. MacArthur Blvd., Mike Monroney Aeronautical Center, Oklahoma City, OK., 73169.
 - 6.4.5.1. Project is located on the 3rd floor and accessible by elevator.
 - 6.4.5.2. Dock access IS NOT available at the building.
 - 6.4.5.3. No storage space is available inside the building or inside buildings at the MMAC.
 - 6.4.5.4. No staging space other than the installation area will be available.

6.5. Installation.

- 6.5.1. Furniture Contractor shall have a full-time installation crew on which a minimum of two-thirds of the crew members are a manufacturer's authorized furniture installer capable of the job requirements of the final approved installation drawing.
 - 6.5.1.1. Installation shall be coordinated with the FAA/ Construction General Contractor in conjunction with the construction schedule.
- 6.5.2. Furniture Contractor shall be required to provide the necessary personnel to accomplish the installation in accordance with the project schedule.
- 6.5.3. Clean up. At the conclusion of each installation, the Furniture Contractor shall:

- 6.5.3.1. Clean in accordance with manufacturer's recommendations, and prepare the furniture ready for use, and vacuum clean the installation site.
- 6.5.3.2. Remove all trash and packing materials from the installation site, and remove from the MMAC premises.
 - 6.5.3.2.1. <u>Cardboard Recycling</u>. The Furniture Contractor shall be responsible for separating recyclable cardboard from other packing materials and the appropriate removal and disposal in the cardboard recycling container located at Building 50. No cardboard may be disposed of in ANY WASTE CONTAINER at the MMAC other than a CARDBOARD RECYCLING CONTAINER.

6.5.4. Inspection.

- 6.5.4.1. At the completion of each phase, the Furniture Contractor's Project Manager, Furniture Installer and the FAA shall inspect all components to ensure that the installation is complete and that the furniture is free of defects and ready for use.
- 6.5.4.2. Furniture Contractor shall repair all defects or replace damaged components in a timely manner to the satisfaction of the FAA.
- 6.6. <u>Deliverables</u>. At the conclusion of the project, the Furniture Contractor shall provide two (2) sets of the following: 1) final installation drawing with as-installed key schedule, 2) final product inventory installed, with a color/finish schedule, 3) product assembly and maintenance information, 4) product warranty, and 5) one (1) electronic installation drawing compatible with AutoCAD 2004 and the inventory compatible with Microsoft Excel or other approved format.

6.7. Training.

6.7.1. Furniture Contractor shall provide training to FAA personnel on installing, reconfiguring and maintaining the product.

7. GENERAL REQUIREMENTS:

- 7.1. <u>General</u>. Furniture components shall have similar construction and appearance, and ability to be integrated in the workspace.
- 7.2. Accessibility. All components and design shall meet ADA and ABA (UFAS) guidelines.
- 7.3. Code Compliance. All components and designs shall meet IBC 2003 and NFPA 101.
- 7.4. <u>Fire Rating</u>. All furniture components shall have a smoke development rating of 450 and a maximum flame spread rating of 25 and shall be rated as Class "A" when tested as specified herein.
- 7.5. <u>ANSI/BIFMA</u> All furniture components shall comply with the applicable ANSI/BIFMA Standards.
- 7.6. <u>Durability</u>. All products furnished under this description shall be of a design and materials to withstand hard daily use with a minimum of maintenance and repair.
- 7.7. <u>Assembly</u>. No special tools shall be required for assembly and/or disassembly of panels, work surfaces, overheads and components.
- 7.8. <u>Keying</u>. Locking components shall have keys. Ideally all components within one workstation should be keyed identical.

7.9. New Products

- 7.9.1. <u>Product Literature & Specifications</u>. A manufacturer's product brochure with illustrations and detailed product specification to determine compliance with FAA specifications shall be provided **with bid package**
- 7.9.2. Warranty. A manufacturer's minimum 10-year product warranty (excluding fabrics and lighting) shall be provided **with bid package**.
- 7.9.3. <u>Availability</u>. A manufacturer's written guarantee of availability of components compatible with the original installation for a period of not less than five (5) years shall be provided **with bid package**.

- 7.9.4. Environmental Aspects. Provide manufacturer's information with bid package:
 - 7.9.4.1. Recycled Content. Amount of recycled content.
 - 7.9.4.2. Recyclable. Amount of post consumer recyclable materials.
 - 7.9.4.3. <u>Air Quality Certification</u>. Emission standards for off-gassing of product components.
 - 7.9.4.4. <u>LEED Eligibility</u>. Identification of LEED eligible products.
- 7.9.5. <u>Product Colors</u>. Furniture Contractor shall select products that provide the following minimum color choices that coordinate with the existing AMZ finishes. Provide samples **with bid package**.
 - 7.9.5.1. Systems Furniture
 - 7.9.5.1.1. Trim Colors must coordinate with existing systems furniture finishes.
 - 7.9.5.1.2. Laminate Colors minimum five (5) solids and four (4) wood-grains.
 - 7.9.5.1.3. Fabrics minimum five (5) patterns with six (6) colors. Pricing shall be based on **GRADE 1 FABRICS**.
- 7.9.6. <u>Product Pricing</u>. Pricing shall be based on the fabric/finish indicated in the specifications.
 - 7.9.6.1.1. Note: This does not prohibit the FAA from selecting another finish with an appropriate cost adjustment.

8. PANELS

- 8.1. Additional System Furniture Workstations Typicals B and C
 - 8.1.1. <u>General</u>. Furniture products shall include "Herman Miller AO1 or Compatible Match" NEW panels in widths, height and thickness as shown on the typical. REFER TO TYPICAL A.
- 8.2. Existing System Furniture Workstations Typicals D, E and F
 - 8.2.1. <u>General</u>. Furniture products are "*Herman Miller AO1" EXISTING* panels in widths, height and thickness as shown on the typical. Furniture Vendor is responsible for the disassembly and relocation as shown on the floor plan.
 - 8.2.2. <u>Panel Cleaning</u>. Panels to be steam cleaned and remain in place as shown on drawings, except as indicated.
- 8.3. <u>Color Selection</u>. To coordinate with the AMZ-100 area and existing furnishings. Submit samples for approval.
- 8.4. <u>Panel Frame</u>. Frames shall be steel and constructed so as to accept side-supported cantilevered lower and upper components or freestanding components.
- 8.5. <u>Panel Thickness</u>. Frames (with panel faces attached) shall not exceed the Herman Miller AO1 thickness (nominal 2" thick). There is no cable management at the panel base.
 - 8.5.1. Thicker frames will NOT be considered.
- 8.6. <u>Panel Face</u>. All fabric panel faces shall be 100% synthetic fabric, have a Class "A" fire rating
- 8.7. <u>Tack Boards</u>. Furniture products shall provide +/- 18" tall tack boards as identified on the typical.
- 8.8. <u>Installation</u>. Straight, level and close all gaps to within 1/8". Fabric panels are taut. Patterns are level and shall not appear stretched, wavy or distorted.
- 8.9. <u>Panel Connections</u>. Furniture systems shall be capable of connecting in a variety of configurations. Panel based systems shall allow for the connection of two, three or four panels from a single point.
 - 8.9.1. The connector system shall provide tight connections, which provide continuous visual and acoustical seals.
 - 8.9.2. Each junction shall have an extruded metal top cover that shall match finish and color of the panel trim and shall be level with the panel top rail.

- 8.10. <u>Component Mounting</u>. Panel based systems shall provide for the mounting of components at varying heights on both sides of the panel. Furniture systems not based on structural panels must allow for the support of overhead cabinets, shelves, work surfaces, task lighting, and paper management.
- 8.11. <u>Leveling and alignment</u>. The system shall provide precise alignment of adjacent panels and /or components and shall include leveling guides to compensate for uneven floors. A minimum of .8 inches (20mm) adjustment range is required. When placed on a level surface with the glides fully retracted the maximum distance between the panel and the floor shall be 1 inch (25mm).

9. WORK SURFACES - PANEL HUNG

- 9.1. Additional System Furniture Workstations Typicals B, C and F
 - 9.1.1. <u>General</u>. Furniture products shall include "Herman Miller AO1 or Compatible Match" NEW panel-hung work surfaces in straight, shaped, corner or extended corner as shown on the typicals.
- 9.2. Existing System Furniture Workstations Typicals D and E
 - 9.2.1. <u>General</u>. Furniture products are "Herman Miller AO1" EXISTING panel-hung work surfaces in straight, shaped, corner or extended corner and peninsula shapes as shown on the typicals. Vendor shall clean existing work surfaces to remain in accordance with manufacturer's recommendations.
- 9.3. <u>BID OPTION 1.</u> Replace all work surfaces with *NEW* "Herman Miller AO1 or Compatible Match panel-hung work surfaces in straight, shaped, corner or extended corner as shown on typicals D-1 and E-1.
- 9.4. <u>Color Selection</u>. To coordinate with the AMZ-100 area and existing furnishings. **Submit samples for approval**.
- 9.5. <u>Construction</u>. All exposed surfaces shall be finished with a high-pressure laminate. Surfaces shall be balanced to resist warping, and underside shall be smoothly finished. All edges shall be ABS or PVC plastic in finish to match plastic laminate.
 - 9.5.1. Work surfaces shall be approximately 1-1/4" thick or by other acceptable heavyduty design.
 - 9.5.2. Abutting work surfaces shall meet at equal heights when used in side-by-side or side-to-end configuration in order to provide a continuous and level work surface.
- 9.6. <u>Dimensions</u>. The system shall include work surface depths of 24 inch (610mm) and 30 inch (760mm) and widths between 24 inch (610 mm) and 72 inch (1525 mm) in 6-inch increments. Work surfaces 66 inches and longer will require additional supports.
- 9.7. End Panels. Full height end panels shall be provided on ends of work surfaces where visible
- 9.8. <u>Cable management</u>. Work surfaces shall have a continuous reveal at back edge approximately 1" wide to permit the passage of power & equipment cables where the surface meets the panel.
 - 9.8.1. In lieu of a continuous reveal, unobstructed color coordinated grommets may be provided in the following quantities:
 - 9.8.1.1. Work surfaces less than 48 inches -- minimum of one (1)
 - 9.8.1.2. Work surfaces 48 inches or more minimum of two (2)
 - 9.8.1.3. Corner work surfaces minimum of one (1)

10. KEYBOARD/MOUSE TRAY

10.1. <u>General</u>: Furniture products shall include a minimum of one (1) **NEW** Keyboard with Mouse tray for each workstation: REFER TO TYPICALS for requirements.

10.1.1. Pullout keyboards shall be fully articulating front-to-back, left-to-right, and up-to-down, with minimum tilt adjustment of 15-degrees. Sized to accommodate keyboards up to 9" x 19" with **retractable** mouse pad and urethane wrist rest

11. PEDESTALS AND DRAWERS (Steel)

- 11.1. <u>General</u>. Furniture products shall include **NEW** locking freestanding steel drawer pedestals with integral metal pull handles. All pedestal units shall be the same depth as the work surface.
 - 11.1.1. All pedestals shall be full height below the work surface. Gaps between the work surface and pedestal shall not exceed one-inch.
 - 11.1.2. Pedestals shall be steel construction with factory-baked enamel finish. Offered in colors to match exposed metal components.
 - 11.1.3. Drawer pedestals must have integral metal pull handles.
- 11.2. <u>Finish</u>. Factory-baked enamel finish to coordinate with exposed systems furniture metal components.
- 11.3. <u>Drawers</u>. Pedestal drawer types shall be provided in the various drawer combinations as shown on the typical and shall be locking.
 - 11.3.1. Pencil Tray. Shall be provided with each Box/Box/File pedestal.
 - 11.3.2. <u>Box drawers</u>. Shall be a minimum of four (4) inches deep and shall have one removable divider.
 - 11.3.3. <u>File drawers</u>. File drawers shall have a minimum inside dimension of 12" wide X 9.5" tall and integral rail with adequate clearance to accommodate letter size hanging folders with tabs. File drawers shall have full extension ball bearing suspensions.
- 11.4. <u>Load</u>. Drawers shall have heavy duty bearing glides. All drawer suspension shall be constructed so as to not expose the user to grease or sharp edges. Minimum load limits on box drawer units shall be 25 lbs and minimum load limits on file drawer shall be 50 lbs.

12. UPPER STORAGE COMPONENTS - PANEL HUNG

- 12.1. <u>General</u>. Furniture products shall include "Herman Miller AO1 or Compatible Match" NEW open and closed panel-hung overhead components.
 - 12.1.1. Components shall be steel or laminate construction with finishes offered in colors to coordinate with existing workstations.
 - 12.1.2. Overhead undersides shall have the same finish and color as the face/end support.
- 12.2. Finish. Coordinating with workstation finishes.
- 12.3. Doors. Closed shelving shall be provided with a lockable door.
- 12.4. <u>Dimensions</u>. Interior of closed units and shelves shall accommodate a minimum of 12" deep by 12" tall objects.
- 12.5. <u>Accessories</u>. A minimum of one (1) steel shelf divider per linear foot shall be provided for each shelf and upper storage component.

13. LIGHTING.

- 13.1. <u>General</u>. Furniture products shall provide Underwriters' Laboratories (UL) tested **NEW** task lighting and appropriate bulbs. REFER TO TYPICALS for requirements.
 - 13.1.1. Diffusion lens and be shielded to prevent direct viewing of the lamp or bulb at eye level from a seated position.
 - 13.1.2. Fluorescent lamps with energy saving or quick start ballast.
 - 13.1.3. Individual on/off switches.

- 13.1.4. Approximately eight (8) feet of power cord capable of being concealed.
- 13.1.5. Linear feet to coordinate with the minimum requirements shown on typicals.

14. LATERAL AND SHELF FILES (Steel):

- 14.1. <u>General</u>: Furniture products shall provide **NEW** 2-Drawer and 5-drawer locking lateral files. REFER TO TYPICALS for requirements.
 - 14.1.1. Metal 5-High Lateral File Cabinets shall have four (4) drawers and one (1) shelf with flipper door.
 - 14.1.2. Metal 2-High Lateral File Cabinets shall have two (2) drawers.
- 14.2. <u>Construction</u>. Shall be constructed of steel, designed for commercial office use. 14.2.1. Case.
 - 14.2.1.1. 5-high case shall be designed to hold both fixed front drawers or roll out shelves with receding doors, with four (4) adjustable glides.
 - 14.2.1.2. 2-High case shall be designed to hold fixed front drawers with four (4) adjustable glides.
 - 14.2.2. Minimum inside clearances. A minimum clear inside height dimension of ten (10) inches shall be provided for drawers and twelve (12) inches for shelves.
 - 14.2.3. <u>Hanging Folder Frames</u>. Each drawer shall be equipped with hanging folder frames to support both legal and letter size material filed both laterally and front to back and with adjustable dividers.
 - 14.2.4. <u>Counter balances</u>. Attached counter balances shall be provided in all freestanding lateral files cabinets except the five tier cabinets.
 - 14.2.5. <u>Suspension system</u>. Rolling drawers and shelves shall have full extension ball bearing suspensions, and extend far enough to allow unobstructed insertion and removal of hanging files and their contents.
 - 14.2.5.1. Design shall permit the drawers or shelves to be closed by pressure applied at any point on the drawer or shelf front from side to side and top to bottom without binding or dragging.
 - 14.2.5.2. All exterior metal surfaces of the suspension member shall be plated. Alternatively, when nylon ball bearing wheels are used on the slide suspension, the metal surface may be plated or enameled.
 - 14.2.5.3. A retaining or anti-rebound feature shall be incorporated in the drawer and shelf suspensions that shall retain the drawer or shelf in the closed position.
 - 14.2.5.4. Dimensional clearances between all suspension members shall be so controlled that the drawers or shelves shall operate smoothly and evenly without any binding or drag and shall limit the horizontal and vertical movement or the drawers or shelves.
 - 14.2.5.5. Out-stops and bumpers shall be installed in a manner to withstand a normal rebound without damage. Cabinet drawers and shelves shall have two (2) noise reducing out-stops, one of each side, that prevent drawers and shelves from falling out of the cabinet when they are fully extended.
 - 14.2.5.6. <u>Interlocking mechanism</u>. Interlock mechanism shall be a positive, automatic mechanism (cords not allowed). When drawer or shelf is open, the remaining drawers and/or shelves shall be locked and in the closed position.
 - 14.2.5.7. <u>Locks</u>. All lateral file cabinets shall be equipped with a locking mechanism to control the locking of all cabinet compartments.
 - 14.2.5.8. Locks shall not be removable without the use of tools.
 - 14.2.5.9. Key locks as directed by the FAA. Provide two (2) keys for each cabinet.
 - 14.2.6. Pulls. Recessed or full-face type, which includes a label holder.

- 14.2.7. <u>Vertical dividers</u>. Dividers shall retain both legal and letter size documents adequately and shall be designed to snap securely in the drawers and shelves without the use of tools or attaching devices.
- 14.3. <u>Static load</u>. All drawers and shelves shall be able to withstand a static load of 100-lbs. with drawer or shelf fully extended, for 15 min, with a deflection of no more than .22 inch while loaded or a permanent deflection of .06 inch after load is removed.
- 14.4. <u>Workmanship</u>. Drawers and shelves shall fit squarely in their openings and shall be formed and finished to eliminate roughness and sharp edges that might come into contact with the users during normal operation of the compartments.
- 14.5. <u>Finish</u>. All visible surfaces shall be coated with the baked enamel or electrostatically applied powder base paint.

15. METAL STORAGE RACKS (Steel):

- 15.1. <u>General</u>: Furniture products shall provide **NEW** metal storage racks. REFER TO TYPICALS for requirements.
 - 15.1.1. Units shall be approximately 72" high with four (4) adjustable shelves
- 15.2. <u>Construction</u>. Shall be constructed of steel wire shelving, designed for commercial office use to hold standard office supplies in accordance with ANSI/BIFMA standards.
- 15.3. <u>Finish</u>. Factory-baked enamel finish to coordinate with exposed systems furniture metal components.

16. ENERGY SAVING CONTROL SYSTEM:

- 16.1. <u>General</u>. Furniture products shall provide Underwriters' Laboratories (UL) **NEW** Energy Saving Control System. Similar to Insole IDP-3050 Plug Load Control "Watt Stopper" or equal.
 - 16.1.1. <u>Outlets</u>. Minimum six (6) power outlets controlled by the sensor and a minimum of two (2) uncontrolled.
 - 16.1.2. Switches. On/Off switch to turn on or off outlets.
 - 16.1.3. <u>Personal Sensor</u>. Utilizing passive infrared technology to detect occupancy within a workspace. Similar to Insole DI-110 Personal Sensor or equal.
 - 16.1.4. Cord Length. Minimum six (6) feet of power cord capable of being concealed.

Notes.

ABA, ABAAS and UFAS. Architectural Barriers Act, Architectural Barriers Act Accessibility Standards, and Uniform Federal Accessibility Standards are available from the United States Access Board, 1331 F Street, N.W., Suite 1000, Washington D.C. 2004-1111, or the Access Board website. http://www.access-board.gov. (800) 872-2253

ANSI/BIFMA. Standards are available from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036. (212) 642-4900

<u>ASTM</u>. Standards are available from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2925. (610) 832-9585

<u>IBC</u>. Standards are available from the International Building Code, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795. (800)-214-4321

NFPA. Standards are available from the National Fire Protection Association, 11 Tracy Drive, Avon, MA 02322. (800) 344-3555

<u>UL</u>. Standards are available from Underwriters Laboratories, Inc., 333Pfingston Rd., Northbrook, IL 60062-2096. (708) 272-8800